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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/668,589   | 09/23/2003  | Frank J. Davis       | ECT 63962           | 2426             |
| 7590 03/01/2006  |             |                      | EXAMINER            |                  |
| Tara L. Pfaeffle<br>Pietragallo, Bosick & Gordon<br>One Oxford Centre 38th Floor<br>301 Grant Street<br>Pittsburgh, PA 15219 |             |                      | HOANG, JOHNNY H     |                  |
|  |             |                      | ART UNIT            | PAPER NUMBER     |
|  |             |                      | 3747                |                  |
| DATE MAILED: 03/01/2006  |             |                      |                     |                  |

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/668,589

Applicant(s)

DAVIS ET AL.

Examiner

Johnny H. Hoang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 January 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-9, 14-22, 27-29 and 34-45 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9, 14-22, 27-29 and 34-45 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### Response to Arguments

1. Applicant's arguments filed January 23, 2006 have been fully considered but they are not completely persuasive. ***Claims 1-9, 14-22, 27-29, and 34-45 are pending.***

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 44, and 45 are rejected under 35 U.S.C. 102(b) as being anticipated by Brown et al (US 5,937,800) in view of Takana (4,603,674).

Regarding claims 44, as rejected in the Action sent on 07/21/05, the reference of Brown et al teaches all the claimed limitations except the new added matter maintaining an operating speed of the engine below a governed speed of the engine.

The reference of Takana discloses a gas-diesel dual fuel engine operative including an electronic governor circuit adapted to receive both a speed signal representing actual speed of engine and a set speed signal representing a predetermined command speed of the engine (see abstract).

Therefore, It would have been an obvious to one of ordinary skill in the art at the time the invention was made to modify and/or provide the method of Brown et al with the electronic governor circuit for maintaining an operating speed of the engine below a governed speed of the

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engine, as taught by Takana in order to maintain the operating speed of the engine below a governed speed of the engine.

Regarding claim 45, as discussed in claim 44, the reference of Brown et al further discloses a gas pressure sensor (42) and a temperature sensor (43) is provided in gaseous fuel manifold (col. 3, lines 1-21).

4. Claims 1-9, 14-22, 27-29, and 34-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brown et al in view of Takana as applied in claims 44, and 45 above, and further in view of Wong (US 6,694,242 B2).

Regarding claim 1, the references of Brown et al and Takana disclose all the claimed limitations as discussed above except the means for communicating with the engine system by a data link.

However, the reference of Wong discloses a dual fuel engine having multiple dedicated controllers connected by a broadband communications link that included the link between the liquid and gaseous fuel controllers (see abstract).

Therefore, It would have been an obvious to one of ordinary skill in the art at the time the invention was made to modify and/or provide the combinations of Brown et al and Takana with the data link between the liquid and gaseous fuel controllers, as taught by Wong in order to provide the new method for delivering liquid fuel and gaseous fuel to the duel fuel engine system.

Regarding claims 2-9, as rejected in claims 44, and 1.

Regarding claims 14-20, as above discussions.

Regarding claims 21, 22, and 27, as rejected in claim 1.

Regarding claims 28, 29, 34-43, as discussed in claim 1.

***Response to Amendment***

5. Applicant's arguments, see pages 8, and 9, filed on 01/23/06, with respect to the rejection(s) of claim(s) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is set forth above.

***Conclusion***

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Johnny H. Hoang whose telephone number is (571) 272-4843. The examiner can normally be reached on 8:00Am-6:30Pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Henry Yuen can be reached on (571) 272-4856. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JHH  
02/22/06

Johnny H. Hoang  
Examiner  
Art Unit 3747

*Willis R. Wolfe*  
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